

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

Prior to this Amendment, claims 1-10 were pending. By this Amendment, claims 1-2 and 7-9 are amended. Claims 11-20 are newly added. No claim has been canceled. Accordingly, after entry of this Amendment, claims 1-20 will remain pending.

In the pending Office Action, claims 1, 3-4 and 7 were rejected under 35 U.S.C. 103(a), as being unpatentable over US 6,005,973 to Seybold et al. (hereinafter "Seybold") in view of US 5,727,081 to Burges et al. (hereinafter "Burges"). Claims 5 and 6 were allowed. Claims 2 and 8-10 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants respectfully traverses the rejection for the reason presented below.

**I. Rejections of 1, 3-4 and 7 under 35 U.S.C. 103**

In the Office Action, claims 1, 3-4 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,005,973 to Seybold et al. (hereinafter "Seybold") in view of US 5,727,081 to Burges et al. (hereinafter "Burges"). Applicants respectfully disagrees with the rejection and, therefore, respectfully traverses same. Seybold discloses, "..., the handwriting recognition method executing in this embodiment on a PDA (100) analyzes handwriting in order to provide (201) one or more candidate characters that may represent the constituent alphanumeric characters that comprises the handwritten input." (column 3, lines 2-7). Seybold also discloses, "Next, the process identifies (202) one or more candidate words by comparing the contents of a dictionary against various combinations of the candidate characters, and providing these various dictionary entries with a corresponding likelihood of being correct. The entries having the highest likelihood are then identified as candidate words." (column 3, lines 10-15). Seybold further discloses, "... the process also identifies a most likely string of characters that represents the input and a most likely string of numeric

characters, consisting in one preferred embodiment of a most likely string of digits, which represents numbers and/or punctuation selected from the set of digits 0 to 9 and common numerical punctuation such as \$ and %. Accordingly, a string of characters is developed wherein each individual candidate character so identified has an individual high likelihood of accuracy." (column 3, lines 25-33). Seybold also discloses, "No comparisons are made to dictionary entries when identifying either the most likely character string or the most likely string of digits. Although dictionary entries are not utilized, in this particular embodiment, the applicant does take into account, for the purposes of developing the most likely character string, the combinations of individual candidate characters that have a highest probability of being accurate through use of character trigram statistics. By reference to such statistical analysis, for example, the applicant can make use of the fact that the letter combination "OUT" is statistically more likely to occur in English words than is the combination "QXZ.\"", (column 3, lines 40-51). Moreover, Seybold discusses, "The process then provides (203) this list of candidate words, the likely character string, and the likely string of digits, numeric or punctuation, for subsequent use." (column 3, lines 63-65).

Burges describes an equation that "represents a summation of all of the path score products over all of the character-string interpretations  $\{C\}$  represented by the alignment graph. Since the denominator portion includes contributions from all possible interpretations, its value depends only on the acquired image  $I$ , not on the particular interpretation  $C$ . The purpose of the denominator portion is to ensure that the probability is properly normalized, such that the sum (over all  $C_i$ ) of  $P(C_i | I)$  equals unity (i.e., 1), in accordance with general principles of probability. Once the numerator portion is computed for a particular character-string interpretation, then the probability for this character-string interpretation is obtained simply by dividing its computed numerator by the common denominator. Fortunately, there are a number of different ways in which the above-described probability computing procedure may be used, such as by incorporation into a grander procedure, in order to arrive at a "correct" character-string interpretation. One approach is illustrated in the flow chart of FIGS. 10A and 10B, whereas an alternative approach is illustrated in the flow chart of FIGS. 11A and 11B." (column 15, line 55 – column 16, line 8).

Assuming a character recognition result is  $a$ , the probability of the character becoming  $C_i$  can be represented as  $P(C_i | a)$ . Burges calculates  $P(C_i | a)$ , which is the probability of the character becoming  $C_i$  where the character recognition result is  $a$ . However, Burges does not calculate  $P(a | C_i)$ . Neither Seybold nor Burges calculates  $P(a | C_i)$ . Burges discusses prior art

using a priori probabilities of the form  $P(I | C)$  in column 14, lines 60-67, but teaches away from calculating a priori probabilities. Moreover, neither Seybold nor Burges discuss computation step of dividing  $P(a | C_i)$  by a probability of generation of the characteristics obtained as a character recognition result.

Thus the combination of Seybold and Burges fails to show the limitation “a first computation step of dividing the probability obtained by said probability calculation step by a probability of generation of the characteristics obtained as the character recognition result by said character recognition processing step” as recited in claims 1 and 7. Claims 3-4 and 11-20 depend from claims 1 and 7 and add further limitations.

Thus, the rejection should respectfully be withdrawn at least because the combination of Seybold and Burges fails to show all the limitations of claims 1, 3-4, 7 and 11-20.

## **II. Allowable Subject Matter**

In the Office Action, claims 2 and 8-10 were objected to as being dependent upon a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 2 is rewritten in independent form including all of the limitations of former claim 1. Claim 8 is rewritten in independent form including all of the limitations of former claim 7. Claim 9 has been rewritten in independent form including all the limitations of former claim 7. Claim 10 depends on claim 8. Thus, claims 2 and 8-10 have been amended such that they should be allowed.

## **III. Newly Added Claims**

Claims 11-20 are newly added. Claims 11-14 depend on claim 1 and claims 15-20 depend on claim 7. Claims 11-20 are believed to allowable at least due to their dependency.

**IV. Conclusion**

Accordingly, the Applicant respectfully requests that the Examiner reconsider and withdraw the asserted rejections and objection. In addition, the Applicant respectfully submits that claims 1-20 are in condition for allowance. The Applicant, therefore, respectfully submits that this application is now in a condition for allowance.

In view of the foregoing, the Applicant respectfully submits that the Examiner reconsider the rejections and objection of the claims, withdraw the rejections and objection, and pass this application quickly to issue.

If there are any fees due for entry of this submission that are not otherwise accounted for, the Applicant asks that any such fees be charged to our Deposit Account No. 03-3975, with reference to Order No. 008312/0276743.

Respectfully submitted,

PILLSBURY WINTHROP LLP

  
JEFFREY D. KARCESKI  
Reg. No. 35,914  
Tel. No. (703) 905-2110  
Fax No. (703) 905-2500

Date: June 23, 2004  
P.O. Box 10500  
McLean, VA 22102  
(703) 905-2000

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